Hudson Bay Mining and Smelting Co., Limited

HBMS

Annual Report 1969

Forty-second
annual meeting
of shareholders

April 24, 1970
at Royal York Hotel,
Toronto, Canada

A request for proxies
will be mailed to all shareholders
during the latter part of
March, 1970

Hudson Bay Mining and Smelting Co., Limited

Head office: Toronto-Dominion Centre, Toronto.

Directors

E. S. Austin
Toronto, Ont.
President, Hudson Bay Mining

C. W. Engelhard
Newark, N.J.
Chairman, Engelhard Minerals & Chemicals Corporation

G. M. Francis
West Englewood, N.J.
Director, Whitney Industries, Inc.

W. A. Green
Riverside, Conn.
Retired

A. T. Lambert
Toronto, Ont.
Chairman and President, The Toronto-Dominion Bank

J. F. McCarthy
Old Greenwich, Conn.
Retired

H. C. F. Mockridge, Q.C.
Toronto, Ont.
Senior Partner, Osler, Hoskin & Harcourt

G. W. H. Relly
Toronto, Ont.
Director, Anglo American Corporation of South Africa, Limited

M. W. Rush
Johannesburg, South Africa
Chairman, Hudson Bay Mining

C. V. Whitney
New York, N.Y.
President, Whitney Industries, Inc.

Officers

M. W. Rush, Chairman of the Board
E. S. Austin, President
W. A. Morrice, Executive Vice-President
H. A. McKenzie, Executive Vice-President
C. O. Buchanan, Vice-President - Metal Sales
L. W. Ogryzlo, Vice-President - Exploration
Dr. C. L. Sarthou, Vice-President - Marketing (Sylvite Division)
K. S. Dalton, Treasurer
J. L. Carpenter, Secretary and General Counsel
G. A. C. MacRae, Comptroller
S. A. Hayward, Assistant Secretary and Assistant Treasurer

Comparative financial highlights

	1969	1968
Operating revenue	$95,674,349	$79,699,926
Investment and other income	2,238,424	1,965,946
Net earnings	29,698,514	21,134,880
Working capital	35,712,690	27,050,816
Marketable securities	8,877,765	20,082,770
Exploration and other interests	11,591,569	7,453,758
Retained earnings	95,160,717	78,715,018
Earnings per share	9.86	7.42
Dividends per share	4.40	4.00

Offices Transfer agents Registrars Auditors

Hudson Bay Mining and Smelting Co., Limited, P.O. Box 28, Toronto-Dominion Centre, Toronto 1, Ontario	**Head Office**
Flin Flon, Manitoba Rocanville, Saskatchewan	**Mine Offices**
Toronto, Vancouver and Flin Flon	**Exploration Offices**
The Royal Trust Company, Montreal, Toronto, Winnipeg, Calgary, Regina, Vancouver Morgan Guaranty Trust Company of New York, New York, N.Y.	**Transfer Agents**
Montreal Trust Company, Montreal Crown Trust Company, Toronto, Winnipeg, Calgary, Regina, Vancouver The Chase Manhattan Bank, New York, N.Y.	**Registrars**
Deloitte, Plender, Haskins & Sells, Toronto	**Auditors**

Report of the Directors

Earnings

The fortunate coincidence of a period of high prices for copper and zinc with the treatment of tax-free ore from the Osborne Lake and Flexar mines resulted in record earnings during 1969 of $29,698,514, which exceeded by 40 per cent the previous record of $21,134,880 established in 1968.

Earnings per share were $9.86, compared with $7.42 in the previous year.

Dividends

Four quarterly dividends of 85¢ each were paid by the Company in March, June, September and December. In addition, a year-end extra dividend of $1.00 per share was paid, making a total distribution during the year of $4.40 per share, compared with $4.00 per share in 1968. Total dividend disbursements in 1969 were $13,252,815, compared with $11,551,067 in the previous year.

Metal prices

The pattern of practically all non-ferrous markets during 1969 was one of demand outstripping supply, and sharply rising prices. This was particularly true of copper. Rapidly growing consumption was responsible for increasing pressure on supplies in a situation already aggravated by consumer stocks which had been run down to a very low level as an aftermath of the nine-months strike by United States copper workers, which ended in March, 1968.

During that strike there was no appreciable drop in industrial production of copper goods in the United States or elsewhere, so that reserve stocks that normally would have exercised a steadying influence on prices were used up. Any hopes of restoring the reserves following the end of the United States copper industry strike were dissipated when growing European demand was accompanied by the appearance of Communist China on the London market as a considerable buyer. It is not possible to forecast the potential demand from China, but it is evident that the country is expanding industrially and its requirements for copper may be large indeed. Apart from this consideration the consumption of the metal continues to grow, particularly in fields where it is not likely to be challenged by substitute materials. On the other side of the coin, the output of copper in the non-Communist world is rising quite sharply and some statistical projections suggest a surplus of supplies by the end of 1970.

The Canadian domestic price for copper wire bars was increased from 45¢ per lb. to 48.5¢ on January 10, 1969; to 50¢ on May 12; to 53¢ on August 5 and to 57¢ on September 9. The copper price to United States consumers was increased from 42¢ (U.S.) to 45¢ (U.S.) on January 10, and to the London Metal Exchange cash price basis on May 1. The London Metal Exchange price for copper increased from the equivalent of 54.6¢ (U.S.) per lb. at the start of the year to 75.6¢ (U.S.) at the end of the year, touching a peak of 79.9¢ (U.S.) on December 8.

The zinc market largely followed the performance of copper for the same reasons because the U.S. copper workers' strike also reduced zinc output, and this in turn ran consumer stocks to low levels.

Canadian and St. Louis prices for all grades of zinc were increased from a base of 13.5¢ (Can.) and 13.5¢ (U.S.) per lb. to 14¢ (Can.) and 14¢ (U.S.) respectively on January 15; to 14.5¢ each on May 1 and to 15.5¢ each on September 4. The overseas producer price for Prime Western zinc increased from the equivalent of 12.25¢ (U.S.) per lb. to 13¢ (U.S.) on May 5, and to 13.93¢ (U.S.) on September 10.

Cadmium prices in all markets improved steadily throughout 1969, rising from the Canadian equivalent of $2.86 per lb. at the start of the year to $4.30 at the year-end.

The price of gold in London at the start of the year was approximately $42 (U.S.) per oz., and rose to a high of $43.63 (U.S.) per oz. on May 8. As international currency fears eased, the price began to fall and at the end of the year was close to the official price of $35 (U.S.) per oz.

The Handy and Harman price for silver at the start of the year was $1.95 (U.S.) per oz. The price dropped steadily until reaching a low of $1.62 (U.S.) per oz. in July when it turned upward again to $1.81 (U.S.) at the year-end.

Markets

In 1969 the Company's copper and zinc were sold in the following areas:

	Copper	Zinc
Domestic	32%	46%
U.S.A.	9%	25%
Overseas	59%	29%

Ore reserves

New ore developed during the year at the various mines of the Company totalled 2,137,000 tons, approximately 436,000 tons more than the tonnage of ore mined. Almost 60 per cent of the new ore was developed in the lower levels of the Stall Lake and Anderson Lake mines.

Reserves of proven ore at the year-end were the highest since 1958, totalling 18,048,600 tons assaying Au. 0.04 oz. per ton; Ag. 0.6 oz. per ton; Cu. 3.0%; Zn. 3.5%; and Pb. 0.2%. At the close of the previous year ore reserves were 17,612,300 tons. It is interesting to note that in the first Annual Report of the Company, which covered development operations at the Flin Flon mine during 1928, it was stated that the orebody was estimated to contain 18 million tons of ore averaging copper 1.71%, zinc 3.45%, gold .074 oz., and silver 1.06 oz.

Today, 41 years later, the Company, after mining 67 million tons of ore, is operating six producing mines, developing two more, and the total ore reserves are for practical purposes unchanged, although the distribution of contained metals is somewhat different.

New developments

On September 9 the Company and Anmercosa Investments Limited, a wholly owned subsidiary of Anglo American Corporation of Canada Limited, each acquired 500,000 treasury shares of New Imperial Mines Ltd. at $2.40 per share, as well as 7 per cent income bonds of New Imperial in the principal amount of $1,425,000.

In addition, the Company and Anmercosa were each granted options, exercisable to December 31, 1972, to purchase a further 500,000 shares at $3.00 per share. If the options are fully exercised the Company and Anmercosa will each hold a 10.65 per cent interest in New Imperial and together will be the major shareholders of that company.

New Imperial Mines Ltd. is a copper-producing company with orebodies in the Yukon copper belt near Whitehorse. The money derived from the above transaction will be used by New Imperial to finance underground development and retire long-term loans.

Prior to December 11 the Company owned 60 per cent of the issued common stock of Hudcana Development Corporation Ltd., a company with substantial shareholdings in Francana Minerals Ltd. and Tombill Mines Limited. On that date, the Company increased its interest in Hudcana to 100 per cent through acquisition of the outstanding Hudcana shares, held 30 per cent by Francana Development Corporation Ltd. and 10 per cent by Anmercosa Investments Limited. As a result of these transactions, involving cash payments totalling $1,203,042, the Company now has a 60 per cent interest in Francana Minerals and a 38 per cent interest in Tombill.

Early in the year it was decided that it would be in the best interests of the Company to move the Head Office from Winnipeg to Toronto, where the Company already maintained an executive office in the Toronto-Dominion Centre. A total of 15 employees, including clerical staff, was transferred to Toronto during July and the Winnipeg office was permanently closed on July 31.

Portfolio

For a number of years the Company maintained a substantial investment portfolio of stocks in leading Canadian and South African companies. Early in 1969 the Company, faced with large capital expenditure commitments, particularly in the development of the Sylvite of Canada potash property, and the threat of falling share market prices, decided to reduce its investment portfolio by selling all the remaining South African securities, as well as several of the holdings in Canadian companies. Details of the changes are shown in the listings which appear on page 13.

Fortunately, the timing of most of the sales was opportune and a capital gain of $1,634,429 was realized during the year. At the year-end the market value of stocks remaining in the portfolio was $10,251,659, which was $1,373,894 higher than cost.

Outlook

Although 1970 has started well for the metal mining industry, with demand and prices remaining firm, the outlook is uncertain and it would be unwise to be overly optimistic about the prospects for the rest of the year.

The tight-money policies of the U.S. Administration and the Canadian federal government, which are calculated deflationary measures, may have effects more far-reaching than intended. If pursued too vigorously and for too long they could lead most of the Western world into a severe recession.

Whilst inflation and excessively high interest rates have understandably become major preoccupations with governments and people everywhere, it is evident that there is an imperfect understanding of the causes of inflation and of how it can be contained. The conventional shibboleth of the economists that effective management of the problem can be achieved by restrictive monetary and fiscal policies is now questionable. The government has sought to support its fiscal policies with guidelines and appeals to labour, industry and business to place voluntary restraints on prices, incomes and expenditures. Whether effective deflationary results can be achieved by these means remains to be seen but the alternative of direct government intervention in the economy by applying controls is as offensive in principle as it is unpalatable in practice.

Tax reform proposals

On November 7, 1969, The Honourable E. J. Benson, Minister of Finance, published in a White Paper the federal government's proposals for reform of the Canadian income tax structure. By attacking the long-established basic tax incentives that demonstrably have played so important a part in the development of mineral resources in Canada, these proposals seriously affect the Canadian mining industry.

It is proposed that the three-year exemption from corporate tax for new mines should end on December 31, 1973, and that the exemption be replaced by a deferment of taxes until all capital costs of establishing a new mine have been recovered. This new concept is based on a recovery-of-investment principle rather than on incentive. In the case of our company, which is an operating and profitable mining concern, the existing rules enable us to recover, for tax purposes, more than 80 per cent of an investment in a new mine by the time it becomes productive. Thus, the recovery-of-investment principle will not compensate our company for the loss of the valuable three-year tax-exempt period.

The White Paper also proposes that the percentage depletion allowance enjoyed by operators of mineral resources should be drastically modified. Commencing January 1, 1976, depletion allowance will no longer be calculated at 33⅓ per cent of taxable income derived from production from a mineral resource, but will be determined on a principle that will lay more stress on "earned" depletion than on the concepts of incentive and wasting assets.

The formula proposed is that for every $3.00 of eligible expenditures, the mine operator would earn the right to $1.00 of depletion allowance with an annual limitation of one-third of taxable income.

Eligible expenditures, described as the amounts spent on exploration for and development of mineral deposits in Canada, will not, as proposed, include costs of future development of producing mines.

In fairness to the White Paper, a transition period is proposed to run from the date of publication of the White Paper until the end of 1975. During this time the depletion allowance will

remain at 33⅓ per cent of taxable income and companies will be allowed to accumulate "depletion credits" based on eligible expenditure during that period. It should be noted, however, that once initial costs and accumulated depletion credits have been claimed for tax purposes, the profits from new mines — in particular our potash property — will be taxed at full corporate rates, in addition to being assessed provincial mining taxes, because there will be no eligible expenditure.

It would seem that the wasting-asset feature and the high element of risk inherent in the mining industry have not received due consideration.

The government has indicated that it will welcome discussion of the White Paper proposals, particularly by the parliamentary committees appointed to consider them. Our company will present a brief to these committees.

Directors and Officers

On June 25 Mr. W. D. Wilson, a director of the Company, resigned his directorship because of mounting pressure of work in Africa. The vacancy so created was filled by the election of Mr. Gavin W. H. Relly, a director of Anglo American Corporation of South Africa, Limited.

During the year, Mr. J. F. McCarthy, Secretary and Treasurer, Mr. A. R. Blake, Assistant Secretary and Assistant Treasurer, and Mr. E. A. Rummery, Assistant Secretary and Assistant Treasurer, retired from the Company after 36 years of service, 39 years, and 40 years respectively. At a meeting of the Board of Directors held on June 25, the following new Officers were appointed:

Mr. J. L. Carpenter, Secretary and General Counsel

Mr. K. S. Dalton, Treasurer

Mr. G. A. C. MacRae, Comptroller

Mr. S. A. Hayward, Assistant Secretary, Assistant Treasurer

Appreciation

On behalf of your Directors, it is a pleasure to extend to Management and to all employees our thanks for their service, loyalty and co-operation, which made possible the success of the Company during the past year.

On behalf of the Board

Maurice W. Smith

Chairman

President

Consolidated balance sheet

as at December 31, 1969

The accompanying notes are an integral part of the financial statements.

Hudson Bay Mining and Smelting Co., Limited and consolidated subsidiaries

Assets

	1969	1968
Current assets		
Cash	$ 946,649	$ 2,243,775
Short-term securities — at cost (market value 1969 — $14,434,538; 1968 — $ 7,513,074)	14,434,538	7,382,093
Accounts receivable	11,451,003	9,872,369
Inventories (note 3)	16,385,014	12,727,694
Materials and supplies — at average cost	5,144,988	4,969,035
Total current assets	48,362,192	37,194,966
Investments		
Marketable securities — at cost (market value 1969 — $10,251,659; 1968 — $22,512,579)	8,877,765	20,082,770
Interests in exploration and other companies		
Unconsolidated subsidiaries (note 1):		
Capital stock — at cost (equity value)	3,260,767	3,113,046
Advances	1,686,329	1,977,945
	4,947,096	5,090,991
Other companies — at cost (no quoted market value)	13,258,205	7,903,940
	18,205,301	12,994,931
Less provision for future write-offs	6,613,732	5,541,173
	11,591,569	7,453,758
Property, plant and equipment — at cost		
Plant and equipment	101,326,899	85,446,848
Mineral and other properties	32,248,676	31,659,979
	133,575,575	117,106,827
Less accumulated depreciation and depletion	70,564,085	67,811,324
	63,011,490	49,295,503
Other assets		
Prepaid preparatory mining expense	35,699,799	29,477,705
Special refundable tax and accrued interest	—	608,362
Sundry assets and deferred charges — at cost	4,927,131	4,094,304
	40,626,930	34,180,371
	$ 172,469,946	$ 148,207,368

Liabilities and shareholders' equity

	1969	1968
Current liabilities		
Accounts payable and accrued liabilities	$ 10,506,401	$ 8,426,477
Income and other taxes payable	2,143,101	1,717,673
Total current liabilities	12,649,502	10,144,150
Deferred income taxes (note 4)	14,883,000	9,584,000
Minority interests in consolidated subsidiaries	3,856,616	4,167,279
Shareholders' equity		
Capital stock (note 5): Authorized — 4,000,000 shares of no par value Issued and fully paid — 3,013,511 shares	45,920,111	45,596,921
Retained earnings	95,160,717	78,715,018
Total shareholders' equity	141,080,828	124,311,939
	$ 172,469,946	$ 148,207,368

Approved by the Board of Directors
Eric S. Austin, Director
Harold C. F. Mockridge, Q.C., Director

Consolidated statement of earnings

for the year ended
December 31, 1969

The accompanying notes are an integral part of the financial statements.

Hudson Bay Mining and Smelting Co., Limited and consolidated subsidiaries

	1969	1968
Revenue		
Sales of products	$ 94,748,214	$ 78,836,678
Less freight, refining and selling expenses	7,884,715	7,611,186
	86,863,499	71,225,492
Sales of power and tolls from treatment of custom concentrates	926,135	863,248
Income from investments	2,018,103	1,793,287
Other income	220,321	172,659
	90,028,058	74,054,686
Costs and expenses		
Production costs	35,499,007	31,904,102
Preparatory mining expense charged to operations	4,328,593	3,006,210
Depreciation and depletion	2,791,792	2,617,126
Exploration expenses	2,458,646	1,802,934
General administrative expenses	2,455,403	1,410,819
Taxes other than income taxes	1,375,058	1,294,555
Provincial royalties	3,034,012	2,746,191
	51,942,511	44,781,937
Income taxes		
Current	2,953,000	4,635,000
Deferred (note 4)	5,299,000	4,005,000
	8,252,000	8,640,000
Earnings from operations	29,833,547	20,632,749
Other income (deductions)		
Gain on sale of investments	1,634,429	1,503,119
Provision for future write-offs of interests in exploration and other companies	(1,071,631)	(697,066)
	562,798	806,053
Net earnings before deducting minority interests	30,396,345	21,438,802
Minority interests in earnings of consolidated subsidiaries	697,831	303,922
Net earnings for the year	$ 29,698,514	$ 21,134,880
Earnings per share (note 6)	$9.86	$7.42

Consolidated statement of retained earnings

	1969	1968
Retained earnings beginning of the year	$ 78,715,018	$ 69,131,205
Add net earnings for the year	29,698,514	21,134,880
	108,413,532	90,266,085
Deduct dividends paid — $4.40 per share (1968 — $4.00)	13,252,815	11,551,067
Retained earnings end of the year	$ 95,160,717	$ 78,715,018

Notes to the consolidated financial statements

December 31, 1969

Hudson Bay Mining and Smelting Co., Limited and consolidated subsidiaries

1. Principles of consolidation

The accompanying consolidated financial statements include the accounts of Hudson Bay Mining and Smelting Co., Limited and the following subsidiaries:

Churchill River Power Company Limited
Zinc Oxide Company of Canada Limited (including its wholly owned subsidiary)
Hudson Bay Diecastings Limited
Hudson Bay Holdings Limited
Hudcana Development Corporation Ltd.
Flexar Mines Limited (80% owned)
Francana Oil & Gas Ltd. (60% owned) (note 9)
Francana Minerals Ltd. (including its wholly owned subsidiary) (60% owned by Hudcana Development)

The accounts of other subsidiaries are not consolidated herein because they are inactive, in the development stage or operate at cost and therefore have had no earnings or losses since acquisition. The accounts of such unconsolidated subsidiaries, in the aggregate, are not significant.

The 1968 comparative figures have been revised to reflect, on a consolidated basis, the accounts of Flexar Mines Limited which accounts were not consolidated in the 1968 financial statements.

During the year the company increased its interest in Hudcana Development from 60% to 100%. In addition, Francana Minerals, a subsidiary company, acquired 100% of Sodium Sulphate (Saskatchewan) Ltd.

2. Foreign exchange

Foreign currencies have been converted to Canadian dollars as follows: revenue and expenditure, non-current assets and liabilities at rates in effect at dates of transactions; current assets and liabilities at rates in effect at the end of the respective years.

3. Inventories

	1969	1968
Inventories at December 31 comprise the following:		
Metals and crude oil, at estimated sales value	$14,621,049	$10,633,735
Metals in process, at cost	1,066,380	1,295,408
Manufactured and other products (finished, in process and raw materials), at cost or net realizable value, whichever is the lower	697,585	798,551
	$16,385,014	$12,727,694

4. Deferred income taxes

Deferred income taxes represent tax reductions applicable to future years for expenditures on preparatory mining, mining and oil properties, costs of participation in certain mining companies, and depreciation claimed in the determination of taxable income but not charged to earnings.

5. Share option plan

The Hudson Bay Mining and Smelting Co., Limited 1968 Share Option Plan for Full Time Officers and Key Employees provided for the granting of options on 56,000 unissued shares at prices not less than 95% of the market value (full market value in the case of United States citizens) on the day the option is granted.

During 1969 options for 5,900 shares granted during the previous year were exercised for which the company received $323,190 cash. As of December 31, 1969, options on 300 shares were outstanding and 30,800 shares were available for future grants of options.

6. Earnings per share

Earnings per share for 1969 have been calculated on the basis of 3,013,511 shares, being the number of shares outstanding at December 31, 1969. The comparative figure for 1968 is based on 2,850,039 shares which represented the weighted average number of shares outstanding during that year.

7. Commitments

The remaining capital expenditures required to bring the Sylvite of Canada potash property into production are estimated at approximately $30,000,000.

8. Remuneration of Directors

Total remuneration received by Directors, including salaries of Officers who are also Directors, amounted to $230,123 (1968 — $190,171).

9. Subsequent events

On January 27, 1970, a subsidiary company, Francana Oil & Gas Ltd., completed a public financing whereby 700,000 common shares were issued for a net consideration of $3,220,000. This issue reduced the parent company's interest from 60% to 51.5%.

Consolidated statement of source and application of funds

for the year ended December 31, 1969

The accompanying notes are an integral part of the financial statements.

Hudson Bay Mining and Smelting Co., Limited and consolidated subsidiaries

	1969	1968
Source of funds		
Operations:		
Net earnings for the year before deducting minority interests	$ 30,396,345	$ 21,438,802
Depreciation, depletion and preparatory mining expense	7,120,385	5,623,336
Provision for future write-offs of interests in exploration and other companies	1,071,631	697,066
Deferred income taxes	5,299,000	4,005,000
	43,887,361	31,764,204
Capital contributed by minority interests	90,680	4,735,400
Sales of marketable securities	12,805,002	5,278,404
Issue of shares	323,190	10,612,716
Special refundable tax	608,362	392,316
	57,714,595	52,783,040
Application of funds		
Dividends paid	13,252,815	11,551,067
Interests in exploration and other companies	5,009,442	6,303,886
Additions (net) to property, plant and equipment	16,507,778	13,738,665
Preparatory mining expenditures	10,550,687	17,079,957
Marketable securities purchased	1,243,804	4,195,077
Acquisition of minority interests	1,717,036	9,583,866
Increase (net) in other non-current assets	771,159	(144,220)
	49,052,721	62,308,298
Increase (decrease) in working capital	8,661,874	(9,525,258)
Working capital beginning of the year	27,050,816	36,576,074
Working capital end of the year	$ 35,712,690	$ 27,050,816

Auditors' report

To the Shareholders of
Hudson Bay Mining and Smelting Co., Limited:

We have examined the consolidated balance sheet of Hudson Bay Mining and Smelting Co., Limited as at December 31, 1969 and the consolidated statements of earnings, retained earnings and source and application of funds for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion these consolidated financial statements present fairly the financial position of the companies as at December 31, 1969 and the results of their operations and the source and application of their funds for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year (after revision of the financial statements for that year as explained in note 1 to the financial statements).

Deloitte, Plender, Haskins & Sells
Chartered Accountants.

Toronto, Canada, February 20, 1970.

Portfolio of investment securities

as at December 31, 1969

		1969	1968
		Shares	Shares
Hudson Bay Mining and Smelting Co., Limited	Abitibi Paper	—	50,000
	Alcan Aluminium — common	10,000	10,000
	Alcan Aluminium — 4¼ % preferred	8,125	8,125
	Algoma Steel	—	50,000
	Bell Canada	15,000	50,000
	Canadian Industries Limited	—	32,000
	Canadian Pacific Investments — 4¾ % preferred	—	22,000
	Canadian Pacific Railway	—	20,000
	Debhold (Canada) — 6¼ % preferred	5,000	5,000
	Domtar	—	30,000
	DuPont of Canada	3,025	20,000
	Imperial Oil	—	22,000
	International Nickel	60,000	75,000
	MacMillan Bloedel	50,000	50,000
	New Imperial Mines	500,000	—
	Noranda Mines	—	40,000
	Supertest Petroleum	—	5,000
	Texaco Canada	—	41,250
	Trans-Canada Pipe Lines — common	—	6,100
	Trans-Canada Pipe Lines — $2.75 preferred	—	4,625
	Union Carbide Canada	—	15,000
		Bonds	Bonds
	Trans-Canada Pipe Lines — 5% — 1989	—	$205,000
		Shares	Shares
Hudson Bay Holdings Limited	Anglo American Corporation of South Africa	—	4,000
	De Beers Consolidated Mines	—	10,000
Francana Oil & Gas Ltd. and Hudcana Development Corporation Ltd.	Northern and Central Gas	—	1,500
	Tombill Mines	1,746,200	1,746,200

Ten-year record

1960-1969

production

	copper (tons)	zinc (tons)	cadmium (lbs.)
60	39,833	67,093	366,636
61	39,460	74,869	307,757
62	37,023	80,766	317,495
63	37,301	79,596	316,050
64	40,417	71,012	329,552
65	39,726	71,435	368,208
66	38,268	73,331	352,405
67	38,403	72,061	352,042
68	41,660	80,308	330,872
69	42,302	79,711	333,959

earnings and dividends

	operating revenue ($)	investment and other income ($)	net earnings ($)
60	47,076,598	946,529	10,351,583
61	47,924,413	905,800	10,971,941
62	49,396,811	1,040,677	11,302,305
63	51,224,671	1,252,771	11,737,063
64	56,377,535	1,435,381	13,095,323
65	61,702,298	1,486,058	15,990,045
66	69,112,153	1,454,342	19,116,388
67	72,351,946	1,612,232	16,718,617
68	79,699,926	1,965,946	21,134,880
69	95,674,349	2,238,424	29,698,514

ore milled and ore reserves

	milled (tons)	reserve (tons)	copper (%)
60	1,682,000	15,834,900	2.6
61	1,683,000	15,286,100	2.7
62	1,702,000	14,934,000	2.8
63	1,619,000	15,115,500	2.9
64	1,585,000	16,627,400	3.0
65	1,640,000	16,842,400	3.0
66	1,690,000	16,765,300	2.9
67	1,588,000	16,884,600	3.0
68	1,610,000	17,612,300	3.0
69	1,702,000	18,048,600	3.0

gold (ozs.)	silver (ozs.)	selenium (lbs.)	
103,708	1,532,111	88,500	60
88,897	1,278,496	87,600	61
85,552	1,185,596	76,740	62
83,878	1,167,160	77,429	63
80,174	1,179,888	70,335	64
82,189	1,215,359	62,061	65
71,202	1,022,009	76,602	66
70,615	1,040,098	63,316	67
59,602	970,674	86,346	68
52,410	818,209	91,866	69

earnings per share ($)	dividends ($)	dividends per share ($)	
3.75	8,273,919	3.00	60
3.98	8,273,919	3.00	61
4.10	8,273,919	3.00	62
4.26	8,963,412	3.25	63
4.75	9,652,905	3.50	64
5.80	10,342,399	3.75	65
6.93	11,169,791	4.05	66
5.93	10,999,845	3.90	67
7.42	11,551,067	4.00	68
9.86	13,252,815	4.40	69

zinc (%)	gold (oz./ton)	silver (oz./ton)	
5.2	0.06	1.0	60
4.9	0.06	0.9	61
4.9	0.06	0.9	62
4.7	0.05	0.8	63
4.3	0.05	0.8	64
4.5	0.05	0.8	65
4.4	0.04	0.7	66
4.1	0.04	0.7	67
3.8	0.04	0.6	68
3.5	0.04	0.6	69

Airborne electromagnetic prospecting

Diamond-drilling on the Tom claims in the Yukon

Diamond-drilling in the northern Manitoba bush

Review of operations

Production

Metal production during 1969 was as follows: refined copper, 84,603,596 pounds; slab zinc, 159,421,966 pounds; cadmium, 333,959 pounds; selenium, 91,866 pounds; gold, 52,410 ounces; and silver, 818,209 ounces.

Also produced and sold were 1,018 tons of lead concentrates containing 335 ounces of gold, 29,313 ounces of silver, and 1,162,760 pounds of lead.

Producing mines

Ore mined from the six producing mines of the Company during the year totalled 1,701,000 tons, an increase of 86,900 tons over 1968. Details of this production, with average assays, are as follows:

		average assays				
		Au	Ag	Cu	Zn	Pb
mine	tons	oz./ton	oz./ton	%	%	%
Flin Flon	622,400	0.05	0.8	1.7	3.3	—
Osborne Lake	376,100	—	—	4.3	1.5	—
Chisel Lake	282,400	0.03	0.8	0.7	13.7	0.4
Stall Lake	204,100	0.06	0.6	4.1	0.6	—
Schist Lake	122,600	0.03	0.9	4.2	5.5	—
Flexar	93,400	0.03	0.1	4.0	0.6	—

Vertical pillars and remnants provided 98 per cent of the ore production at the Flin Flon Mine.

At the Chisel Lake Mine, the exploration program from the 1,450-ft. level added 105,000 tons grading 10.5 per cent zinc to the reserves.

Production from the Stall Lake Mine was at the planned reduced tonnage in order to continue development and exploration of the lower levels. Additional ore from exploration diamond-drilling and development totalled 741,500 tons grading 3.5 per cent copper.

Osborne Lake Mine's first full year of production yielded both tonnage and grade as per calculations. Development of the upper north section of the mine was started.

Production at the Schist Lake Mine was maintained at the same rate as in 1968 and exploration drifting on the lower levels added approximately 100,000 tons grading 3.8 per cent copper and 3.3 per cent zinc.

Stope development was completed at the Flexar Mine and production started on April 1, 1969. Grade was consistent with preproduction estimates and 19,000 tons were added to the reserves.

Mines under development

Major preproduction development was nearly completed during the year at the Anderson Lake Mine. Following the excavation of the conveyor gallery and the crusher station, installation of the crushing equipment was started. Diamond-drilling and development work to the 2,650-ft. level outlined 530,000 tons of additional ore grading 4.7 per cent copper. Production is planned to begin on January 1, 1971.

At the Dickstone Copper Mine the No. 1 shaft was completed to a depth of 1,342 ft. and No. 2 shaft was started and sunk 997 ft. Development of levels and stopes is well underway. Production is planned to begin on January 1, 1971.

Other mining properties

There was no activity during the year at the Company's wholly owned Ghost Lake Mine.

Clearing of a road and powerline right-of-way was started to the White Lake Mine, which is also wholly owned.

Manitoba Chromium Limited in Manitoba and Baffinland Iron Mines Limited were inactive and their positions remain essentially unchanged.

The economics of bringing the Hudson-Yukon copper-nickel property into production were investigated during the year. The Company holds a 93 per cent interest in this property. Negotiations have been held with Japanese interests for the sale of bulk concentrates, should production begin. However, by year-end, no decision had been reached.

The economic feasibility study of Stikine Copper Limited was continued. Whether this property will be brought into production will probably depend on the federal government's final decision with respect to changes in the taxation treatment of the Canadian mining industry proposed in the White Paper on tax reform.

HBAT fleet services exploration: three Otters; a Beechcraft; a Cessna; a Fairchild Hiller helicopter

Exploration

Hudson Bay Exploration and Development Company Limited carried out exploration on its own behalf in Manitoba, Saskatchewan, and the Yukon Territory and jointly with Anglo American Corporation of Canada Limited in the Yukon Territory, British Columbia, Ontario, and Quebec. Diamond-drilling on all Canadian projects directed by the Company totalled 146,139 ft. and tested 314 geophysical anomalies.

Three base-metal zones were discovered. One zone is located in Saskatchewan, near Flin Flon, Man., and is a small, potentially economic deposit. The other two zones are located in Manitoba and additional diamond-drilling will be done in 1970.

The federal government completed reclamation of the Canol Road in the Yukon Territory thereby providing access to the Company's Tom claims, where a portal was collared for an adit to be driven in 1970. This adit will provide access for underground exploration of the silver-lead-zinc deposit.

Exploration by diamond-drilling, geophysics and geochemistry continued at the Wellgreen nickel property of the Hudson-Yukon Mining Co., Limited. Toward the year-end, feasibility studies were started with a view to bringing this property into production.

The Company maintained its position in Sullipek Mines Inc. The latter continued exploration by adit and underground drilling to evaluate the copper deposit in Gaspe, Que.

Options were taken by the Company on five properties during 1969 and at the end of the year 10 options continued in good standing. The Company's personnel manage and direct the work on all the options. One option covers claims located near the Eastmain River, Que., and is shared with three other major mining companies. In addition to the options, the Company holds 3,302 claims, 147,891 acres in claim blocks and two prospecting permits totalling 465 sq. miles.

Hudson Bay Air Transport Limited, a wholly owned subsidiary of the Company, flew 2,600 hours, or 279,395 miles, largely in support of the exploration programs.

Concentrator

A teletype terminal was installed to relay X-ray quantometer data to a remote computer for evaluation and metallurgical improvement.

The concentrator treated 1,702,000 tons of ore and exceeded last year's total by 92,000 tons. Of the total tonnage treated, the Flin Flon Mine contributed 36.6 per cent; Osborne Lake Mine, 22.1 per cent; Chisel Lake Mine, 16.6 per cent; Stall Lake Mine, 12 per cent; Schist Lake Mine, 7.2 per cent; and Flexar Mine, 5.5 per cent.

Ore treated and the average assays for 1969 and 1968:

	1969	1968
tons of ore	1,702,000	1,610,000
average tons per day	4,660	4,400
Au — oz. per ton	0.03	0.04
Ag — oz. per ton	0.6	0.7
Cu — %	2.7	2.8
Zn — %	4.3	5.0
Pb — %	0.2	0.3

The following concentrates were produced from ore treated:

		assays				
concentrates	**tons**	**Au** oz./ton	**Ag** oz./ton	**Cu** %	**Zn** %	**Pb** %
copper	284,600	0.13	2.1	15.3	3.8	0.3
zinc	119,800	0.04	1.0	0.8	47.0	0.3
lead	1,020	0.32	28.5	1.4	4.7	56.0

A total of 1,296,000 tons of flotation tailings was produced during the year, of which 831,000 tons were treated in the cyanide section for partial recovery of the gold and silver content. A total of 1,188,000 tons of tailings was stockpiled and the balance used for mine backfill purposes.

To assess the purity of the tailings water and to determine the dust burden in the air, a monitoring program was established in collaboration with the Manitoba government. Considerable test work indicated that tailings areas, when abandoned, will support growth of vegetation to control dusting.

The total tonnage and approximate assays of tailings stockpiled to date are as follows:

	assays					
tons	**Au** oz./ton	**Ag** oz./ton	**Cu** %	**Zn** %	**S** %	**Fe** %
48,479,000	0.02	0.3	0.2	0.8	23.6	26.7

Zinc refinery

Production was the third-highest in the history of the plant. A total of 159,422,000 pounds of slab zinc was produced, a decrease of 1,194,000 pounds from 1968. Purchase of zinc concentrates from other companies accounted for approximately 13 per cent of the year's zinc production.

An automatic bundle-strapping machine was installed during the year.

The following materials were treated:

		assays			
	tons	Au oz./ton	Ag oz./ton	Zn %	Cu %
HBMS concentrates	131,100	0.04	1.0	47.1	0.8
oxide	42,300	0.01	0.5	62.4	0.8
purchased concentrates	23,100	—	1.0	52.7	0.3

Throughout the year 54,200 tons of zinc-plant sulfide residue were produced of which 52,300 tons were delivered to the copper smelter and the remainder sent to stockpile. In addition, 11,400 tons of oxide residue were produced and stockpiled. At year-end there were 190,900 tons of zinc-plant sulfide residue and 247,100 tons of oxide residue in stock.

Production of metallic cadmium totalled 333,959 pounds, an increase of 3,087 pounds over 1968. The average purity was 99.98 per cent.

Copper smelter

Hudson Bay copper concentrates treated during the year increased by 3,500 tons over the previous year. Residues and byproducts showed a decrease of 1,900 tons. Concentrates treated on a toll basis increased by 800 tons and the total tonnage custom-treated accounted for 10 per cent of the smelter's output.

		assays			
	tons	Au oz./ton	Ag oz./ton	Cu %	Zn %
HBMS concentrates	285,900	0.13	2.1	15.4	3.8
residues, etc.	80,400	0.17	3.4	2.6	25.4
custom concentrates	32,900	—	—	—	—

The tonnage and metal content of blister copper produced for the Company's account and for shipment to the refinery were as follows:

tons	Au-ozs.	Ag-ozs.	Cu-lbs.	Se-lbs.
42,945	53,209	826,474	85,033,044	139,253

Smelter oxide recovery was 9,090 tons, assaying 29.3 per cent Zn; 3.4 per cent Cu; 1.4 per cent Cd; and 12.2 per cent Pb. This material was delivered to the zinc plant for treatment.

Slag treated in the fuming furnaces totalled 415,000 tons, yielding 33,300 tons of oxide. This oxide, containing 47,434,000 pounds of zinc, was delivered to the zinc plant for processing to slab zinc.

Research

The study of automated metallurgical process control was emphasized during the year. In particular, a joint study by the concentrator and research departments on the use of the concentrator X-ray on-stream analyzer to control automatically the flotation process was continuing at year-end.

Plant effluents were monitored during the year and new methods to reduce further or eliminate undesirable constituents were investigated.

Development work on the Saskatchewan Research Council process for production of potassium sulphate was carried out and an economic feasibility study was prepared.

Beneficiation procedures for the mines under development were established and methods for reducing soluble losses in zinc-plant residues were tested.

Assaying facilities were augmented with atomic absorption equipment to handle the increasing assay load.

Power supply

The fully automated hydroelectric plant of the Company's wholly owned subsidiary, Churchill River Power Company Limited, operated without major difficulty throughout the year. The installation of solid-state static exciters on all generators was completed during the year. This will improve the stability of the system.

Sufficient precipitation on the western watershed aided the conservation of Reindeer Lake storage but, in spite of this, substantial precipitation will be required to avert a possible water shortage in the spring of 1971.

Power generated was a record 723,247,000 kilowatt hours, an increase of 35,000,000 kilowatt hours over 1968.

Light and power requirements for the towns of Flin Flon and Snow Lake were supplied by Northern Manitoba Power Company Limited, a wholly owned subsidiary of Churchill River Power Company Limited. The requirements of Creighton, Denare Beach, and the Boundary Area in Saskatchewan were supplied by Northern Power Limited, a wholly owned subsidiary of Northern Manitoba Power Company Limited.

Personnel and administration

The number of employees, including those of wholly owned subsidiaries, on the payroll at the end of 1969 totalled 3,021, a decrease of 28 from 1968. Total membership in the Twenty-Five-Year Club is 972, of which 588 are still on the payroll.

Qualified personnel, especially underground workers, were in short supply, as was the case in 1968.

A data-processing computer with multi-processing and instant-retrieval capabilities was installed in a specially built extension to the mine office at Flin Flon.

The 18 additional houses built at Snow Lake in 1968 for resale to employees were sold and occupied at year-end. There were no houses constructed in 1969; however, 20 will be erected in 1970.

A comprehensive accident-prevention program is operating in all underground and surface departments.

Sylvite of Canada's potash mine and refinery under construction near Rocanville, Saskatchewan

Sylvite of Canada
Division of Hudson Bay Mining and Smelting Co., Limited

Good progress continued to be made at the potash property during the year with the engineering, equipment selection and procurement, shaft-sinking and surface construction programs proceeding almost on schedule.

Expenditures during the year totalled $18,519,000 of which $3,722,000 was spent on shaft-sinking, $10,000,000 on refinery construction, and $4,797,000 on all other construction, purchase of equipment, and administration. Total expenditure on the project at year-end was $40,232,000.

Shaft-sinking continued at a satisfactory rate with no major problems encountered. The Blairmore Formation was sealed off by tubbing in both shafts and subsequently the freeze plant was shut down and dismantled. Tubbing lining was also used to line both shafts in the major water-bearing zones below the Blairmore Formation.

During the year the service shaft advanced 1,689 ft. to a depth of 2,992 ft. below the collar and at year-end was 145 ft. above the potash mining horizon. The production shaft advanced 1,922 ft. to a depth of 2,990 ft. A total of 1,065 ft. of tubbing lining was placed in both shafts during the year.

Construction of the surface plant was continued throughout the year. The office was completed and occupied by Sylvite's staff in April. Erection of structural steel for the refinery building was started in the spring and by year-end the building was sheeted in with aluminum siding. Installation of equipment and services proceeded in conjunction with the erection of the steel. Refinery construction was 66 per cent complete at year-end and it is anticipated tune-up will start in the fall of 1970.

A 72-KV terminal building and a high-voltage switchhouse were constructed and connected by four buried 72-KV cables. Work on electrical equipment installation was started in both buildings and continued at year-end.

Permanent headframe erection was started for both shafts with piled foundations constructed for the legs and the main steel structures erected over the sinking headframes. Sheeting of the service shaft headframe hoisthouse was 75 per cent complete by year-end.

Good progress was made on mine planning and the selection of mining equipment was finalized. One 2-rotor, and two 4-rotor Marietta continuous-boring machines were selected. An extensible conveyor, to work in conjunction with the boring machines, was designed, constructed and tested by an equipment manufacturer.

Construction of the pumphouse, four miles north of the plant, was completed and a good supply of water was available.

In November, 1969, the Saskatchewan government passed regulations which limit the production from each mine in the province according to a formula. The formula is designed to favour those companies which have been in production longest and which have established markets. In conjunction with production rationing the government has regulated a minimum floor price of $18.75 (U.S.) per short ton for standard-grade potash. The combined effect of these regulations will probably be harmful to Sylvite's marketing efforts. However, it is hoped the government will modify the regulations so that Canadian companies will have equal opportunity with others.
In the Company's Annual Report covering the year 1968, mention was made of an arrangement concluded with Terra Chemicals International, Inc., of Sioux City, Iowa, whereby, in return for an investment of $7,000,000 our Company acquired a 15 per cent equity interest as well as certain subordinated sinking-fund notes and convertible subordinated notes which, if converted, would increase our equity interest to 25 per cent.

When this investment was made it was arranged that Sylvite would supply Terra's captive potash requirements, which were estimated at 100,000 tons per year. In addition, Terra would act as sales agent in the U.S. and it is expected that, in due course, about one-third of Sylvite's production will be marketed in the U.S. through Terra.

The fertilizer industry in the U.S. experienced another disastrous year in 1969, with products being sold at below economic prices and consumers being allowed excessively long credits. Terra has had to operate under these unhappy conditions with inevitable operating losses.

To improve the financial position of the company, management has taken steps to curtail unnecessary expenditures and to improve efficiency of operation. In addition, consideration will be given early in 1970 to restructuring the capital of the company in such a way as to reduce materially the interest charges on loan capital.

Review of subsidiary and affiliated companies

Hudson Bay Diecastings Limited

Hudson Bay Diecastings Limited, located at Bramalea, Ontario, earned a higher profit in 1969 than in 1968, despite a slight drop in sales from the $4,000,000 reported last year. The increased profit was due to the production of a higher percentage of plated products. A slowdown in the automotive industry during the last half of 1969 was the reason for the lower sales volume.

Increasing competition from substitute materials continues to threaten the zinc diecasting industry. This situation, coupled with shrinking profit margins experienced throughout the industry, was highlighted by Canada's largest diecasting company being forced to go out of business.

Although the diecasting industry is entering into a period of readjustment due to changing market conditions, Hudson Bay Diecasting Limited is in an excellent position to improve both sales and profits.

In 1969 the company installed a new scrap-conveying system resulting in a marked increase in efficiency. A new 100-ton diecasting machine was purchased and will be in operation early in 1970.

Zinc Oxide Company of Canada Limited

Zinc Oxide Company of Canada Limited and its operating subsidiary, Durham Industries (Canada) Limited, both located in Montreal, reported increased earnings, reflecting record sales of zinc dust and zinc oxide.

The zinc oxide facility operated at 95 per cent of its production capacity but the zinc dust operation was only at a 70 per cent level due to a strike affecting a major consumer.

Research work continued to improve the Zocofax grade of oxide which is used in paper coating for the photocopying field. To date, sales of this specialty-grade material have been very encouraging.

The zinc dust plant, besides producing a standard zinc dust for the trade, is capable of producing large quantities of ultrafine material. This ultrafine dust, while largely used in Europe, has only recently gained acceptance in North America and both our research and sales staff are prepared to take advantage of this new and exciting market.

The zinc dust and zinc oxide plants required only normal maintenance throughout the year. Labour relations continued to be excellent.

Francana Oil & Gas Ltd.

Crude oil and natural gas production in 1969 remained generally at the same level as during 1968, with 902,742 barrels of oil and 1.5 billion cubic feet of gas being produced.

Income from all sources increased slightly from $2,054,000 to $2,094,000. Earnings after provision for deferred taxes were $769,000, compared with $760,000 in 1968.

In 1969 the company was converted from private to public status. The share capitalization was reconstituted in August by subdividing each of the 500,000 common shares, whether issued or unissued, into 20 common shares, resulting in an authorized capitalization of 10,000,000 common shares of which 4,233,000 were outstanding. In addition, 14,000 — 5% cumulative redeemable convertible preferred shares of par value $100 each were created.

The company paid a cash dividend of $423,300 on its common shares as well as a stock dividend consisting of the 14,000 preferred shares. The preferred shares are to be redeemable at par on a pro-rata basis commencing September 30, 1970, and extending over a four-year period ending September 30, 1973, at a rate of approximately $350,000 per year, or they may be converted to common shares during the same period at the election of the holder at conversion prices escalating from $6.40 to $7.60 per common share.

In a report dated July 21, 1969, James A. Lewis Engineering Co. Ltd. estimated company-proven reserves as of June 30, 1969, at 12,530,100 barrels of oil and 27.3 billion cubic feet of natural gas. At year-end, after adjustments for newly developed reserves and production, the reserve estimates remained essentially unchanged.

The year's exploration and development program included participation in the drilling of 23 gross wells, which resulted in 4.0 net Francana oil producers, 0.9 net gas wells, and 6.18 net dry holes. An oil discovery was made in the Strome Area and gas discoveries were made in the Strome and Crowfoot Areas, all in Alberta. Follow-up drilling will be required to evaluate the potential of these discoveries. In addition, 26 wells were drilled by others on or offsetting Francana acreage at no cost to Francana, which served to evaluate the company's acreage. This drilling yielded to Francana 1.06 net oil wells.

In 1968, the company's land portfolio included representation in the Arctic, the Northwest Territories, and in Western Canada. This portfolio was expanded in 1969 by the addition of lands in Alberta, British Columbia and offshore from Nova Scotia and Newfoundland.

An underwriting agreement was concluded in December providing for the sale of 700,000 common shares at $5.00 per share to the public. The sale of treasury stock will establish a market value for the company's common shares and provide it with additional funds for an expanded program of acquisition, exploration and development.

The Head Office and staff of the company were moved to Calgary at midyear. Subsequently, the exploration department was expanded and the company's sphere of activity was broadened to place more emphasis on a wide variety of prospects in the sedimentary areas of Canada.

At year-end, 60 per cent of the common shares of the capital stock of Francana Oil & Gas was owned by Hudson Bay Mining. Upon completion of the above financing arrangements, Hudson Bay Mining's interest will be reduced to 51.5%.

Francana Minerals Ltd.

This company, located near Cabri, Saskatchewan, completed its first year of operations with production of anhydrous sodium sulphate totalling 30,564 tons, of which 27,416 tons were delivered to customers and the remainder kept in inventory.

Because of inability to obtain adequate markets during the initial year, the plant operated at 30 per cent of rated capacity. Considerable sales improvement is predicted for 1970 as markets continue to grow in the pulp and paper, and detergent industries, both in Canada and offshore.

Although there was some difficulty obtaining the desired quality of product in early operations, the process was altered so that all sodium sulphate is now taken into solution and then recrystallized. As a result, Francana Minerals now produces one of the cleanest products in the industry.

In December, 1969, Francana Minerals Ltd. purchased Sodium Sulphate (Saskatchewan) Ltd. for $545,454.

Ore reserves of Sodium Sulphate (Saskatchewan) Ltd. are approximately 2,500,000 product tons and are amenable to dredge mining.

This company had previously constructed a plant and had produced a limited amount of sodium sulphate. However, operations were inefficient because of the lack of water for the brining process. It is planned to reconstruct the plant and mine by dredging rather than brining.

Hudcana Development Corporation Ltd.

In December, 1969, Hudcana became a wholly owned subsidiary of Hudson Bay Mining and Smelting Co., Limited when Hudson Bay Mining acquired the 40 per cent minority interest for a cash consideration of $1,203,042.

There was no change during the year in the percentage interests of Hudcana in Francana Minerals Ltd. (60 per cent), and Tombill Mines Limited (38 per cent).

Properties and subsidiary companies

Properties	Flin Flon Mine and metallurgical plants Schist Lake Mine White Lake Mine Chisel Lake Mine Stall Lake Mine Osborne Lake Mine Anderson Lake Mine Ghost Lake Mine Wim Mine Sylvite of Canada Division
Wholly owned subsidiary companies	Churchill River Power Company Limited Northern Manitoba Power Company Limited Northern Power Limited Hudson Bay Exploration and Development Company Limited Hudson Bay Air Transport Limited Beaver Exploration Company Zinc Oxide Company of Canada Limited Durham Industries (Canada) Ltd. Hudson Bay Diecastings Limited Hudson Bay Holdings Limited Hudcana Development Corporation Ltd.
Other companies — directly or indirectly controlled	Manitoba Chromium Limited Flexar Mines Limited Hudson-Yukon Mining Co., Limited Francana Oil & Gas Ltd. Francana Minerals Ltd. Sodium Sulphate (Saskatchewan) Ltd.
Properties with mining rights	Dickstone Copper Mines Limited

Location maps

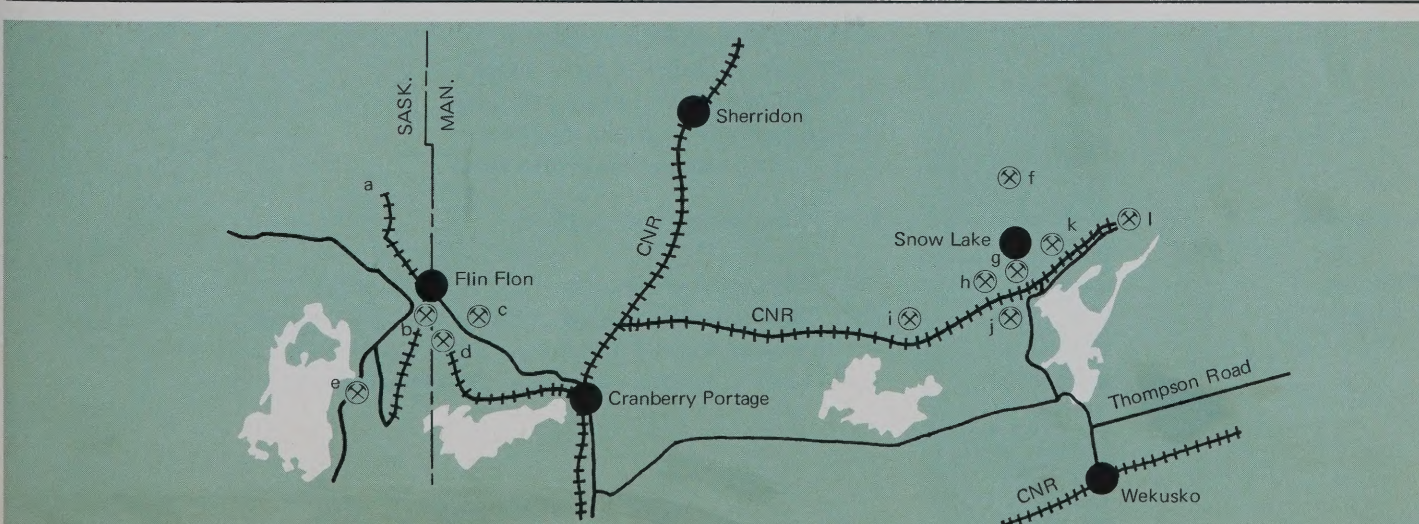
wholly or partly owned Canadian properties of Hudson Bay Mining and Smelting Co., Limited

Map of Canada

1 Hudson-Yukon Mining Co. Limited
2 Stikine Copper Limited
3 Baffinland Iron Mines Limited
4 Churchill River Power Company Limited
5 Francana Minerals Ltd.
6 Francana Oil & Gas Ltd.
7 Sodium Sulphate (Saskatchewan) Ltd.
8 Sylvite of Canada
9 Manitoba Chromium Limited
10 Hudson Bay Diecastings Limited
11 Zinc Oxide Company of Canada Limited
12 Durham Industries (Canada) Ltd.

Map of Flin Flon / Snow Lake Area

a Flux Pit
b Flin Flon Mine
c White Lake Mine
d Schist Lake Mine
e Flexar Mine
f Wim Mine
g Anderson Lake Mine
h Chisel Lake Mine
i Dickstone Mine
j Ghost Lake Mine
k Stall Lake Mine
l Osborne Lake Mine



Operating personnel

Base-metal mining, refining and smelting	**Flin Flon**	D. J. Robertson, general manager J. R. G. Sadler, assistant general manager G. H. McIntosh, assistant to the general manager L. G. Johnson, personnel manager P. M. T. Healey, administration manager J. R. Bray, superintendent of mines A. E. Stephansson, assistant superintendent of mines J. H. Black, mine superintendent — Flin Flon Area L. R. Nilsen, mine superintendent — Snow Lake Area R. L. Price, Western superintendent of exploration P. L. Martin, chief mining geologist J. N. Kirkbride, research superintendent J. E. Goodman, concentrator superintendent W. E. McFadden, zinc plant superintendent G. H. Kent, smelter superintendent M. N. Collison, mechanical and construction superintendent S. H. Evans, electrical superintendent F. H. Gummerson, powerhouse superintendent G. M. Watt, surface and transportation superintendent G. H. Dash, hydro plant superintendent N. Iannone, safety superintendent J. Putney, purchasing agent
Sylvite Division Potash mining and refining	**Rocanville**	J. S. Warick, general manager D. C. Smith, production manager W. G. Schultz, mine superintendent F. J. Greeves, mill superintendent N. J. Cyr, administration manager
Head Office	**Toronto**	Dr. J. B. Howkins, chief geologist R. B. Cairns, Eastern superintendent of exploration A. N. C. Gillies, traffic manager J. D. Purvis, manager — metal sales M. A. de Vette, chief electrical engineer A. Epp, manager — public relations J. G. Hartsig, manager — potash sales
Branch office	**Vancouver**	R. A. Freberg, resident geologist
Subsidiary companies	**Montreal** **Toronto** **Calgary** **Regina**	D. B. Clark, general manager — Zinc Oxide Company of Canada Limited G. F. Clark, general manager — Hudson Bay Diecastings Limited N. J. Knowles, general manager — Francana Oil & Gas Ltd. R. V. Tomkins, general manager — Francana Minerals Ltd.

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